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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/989,599	11/20/2001	Kuntal Chowdhury	14213RR (NORTH 2285003)	1564
7590	05/02/2006		EXAMINER FERRIS, DERRICK W	
Gregory W. Carr Carr & Storm, L.L.P. Suite 670 900 Jackson Street Dallas, TX 75202			ART UNIT 2616	PAPER NUMBER
DATE MAILED: 05/02/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/989,599	Applicant(s) CHOWDHURY ET AL.	
	Examiner Derrick W. Ferris	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 15, 16 and 26 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-13 and 21-24 is/are allowed.
- 6) ☒ Claim(s) 1-7, 14, 17-20 and 25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Arguments*

1. This Office action is in response to applicant's paper filed 3/27/2006. **Claims 1-14, 17-25** as amended are still in consideration for this application. Applicant has amended claims 1, 5, 14, 17, 18, and 25.
2. Examiner does **not withdraw** the anticipated rejection to *Ton* and corresponding obviousness rejections. Applicant's arguments filed 3/27/2006 have been fully considered but they are not persuasive. In particular, applicant argues a specific embodiment of the invention for which the examiner does not rely on. Specifically, with respect to figure 3, a mobile transmits an access request message as message 320 that indicates a dynamic home agent assignment (the examiner also notes that other embodiments may also read on the claims). In particular, even though a statically configured HA is sent in the message, the HA dynamically determines a home agent thus teaching the above limitation, see e.g., column 7, lines 13-49. In addition, the preferred home agent is the agent with the least load based on the load information stored in a load information table. As such, the rejection is maintained.
3. Examiner **withdraws** the anticipated rejection to *Warrier* as necessitated by amendment. However, please find a new rejection below as necessitated by amendment.

### *Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an

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international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. **Claims 1, 4, 6-7 and 17** are rejected under 35 U.S.C. 102(e) as being anticipated by U.S.

Patent No. 6,771,623 B2 to *Ton*.

As to **claim 1**, see e.g., figure 3 (and not figure 2) with respect to Advanced Dynamic Load Balancing. As such, receiving an access request message indicating a request for mobile IP services is taught as MIP registration request 320, 325. Assigning the home agent from a pool of available agents is taught when home agent #1 determines whether it will handle the request or pass on the request to the best suited home agent in the "pool", see e.g., column 7, lines 19-27. Finally, transmitting a home agent address of the home agent is MIP registration reply message 350, 360 which contains the HA IP address extension, see e.g., column 7, lines 35-49.

As to **claim 4**, see figure 3 where a request message requests a home agent thus indicating a home agent assignment and the request further pre-selects a home agent (i.e., a preferred agent is selected).

As to **claims 6-7**, the semi-static home agent is the pre-selected home agent where the selected home agent either is the chosen home agent or selects another home agent.

As to **claim 17**, see similar rejection to claim 1.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 2 and 3** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Patent No. 6,771,623 B2 to *Ton* in view of U.S. Patent No. 6,785,823 B1 to *Abrol et al.*

(“*Abrol*”).

As such to **claims 2-3**, *Ton* discloses using a registration request and response message but is silent to using the RADIUS protocol in conjunction with the request/response protocol.

*Abrol* teaches the further recited limitation above at e.g., see figure 5 with respect to steps 590 and 595 and at column 12, lines 1-20.

The proposed modification of the above-applied reference(s) necessary to arrive at the claimed subject matter would be to modify *Ton* by clarifying that the request and response message have an NAI extension for RADIUS.

As such, examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to include the above limitation. In particular, the motivation for modifying the reference or to combine the reference teachings would be for a more secure protocol. In particular, *Abrol* cures the above-cited deficiency by providing a motivation since the RADIUS is a more secure protocol. Second, there would be a reasonable expectation of success since both references teach mobile IP. Thus the references either in singular or in combination teach the above claim limitation(s).

8. **Claims 5, 18 and 19-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over

U.S. Patent No. 6,771,623 B2 to *Ton* in view of “Design and Analysis of a Replicated Server Architecture for Supporting IP Host Mobility” to *Juv et al.* (“*Juv*”).

As such to **claim 5**, *Ton* discloses load balancing but does not specifically mention a load balancing protocol, see e.g., column 7, lines 13-20.

*Juv* teaches the further recited limitation above at e.g., pages 19-20.

The proposed modification of the above-applied reference(s) necessary to arrive at the claimed subject matter would be to modify *Ton* by clarifying different types of load balancing algorithms such as round robin.

As such, examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to include the above limitation. In particular, the motivation for modifying the reference or to combine the reference teachings would be to perform load balancing with schemes that are well known in the art and that is simple to implement. In particular, *Abrol* cures the above-cited deficiency by providing a motivation *Abrol* discloses that round robin is simple to implement, see e.g., left-hand column on page 20. Second, there would be a reasonable expectation of success since both references teach mobile IP. Thus the references either in singular or in combination teach the above claim limitation(s).

As to **claim 18**, see similar rejection to claim 5.

As to **claims 19-20**, see similar rejection to claim 6.

9. **Claims 14 and 25** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Warrier et al.* ("*Warrier*") in view of "Mobile IP" to *Perkins*.

As to **claim 14**, *Warrier* teaches that the home agent control node (HACN) detects a home agent HA failure, see e.g., column 5, lines 15-20. In particular, *Warrier* teaches various techniques for detecting a failure including a status message, see e.g.,

column 6, lines 27-40. Thus the status message includes availability information.

*Warrier* may not clearly teach receiving *an access request message indicating a request for mobile IP services*, wherein the access request message indicates dynamic home agent assignment. In particular, *Warrier* may not be clear that an access message indicates a request for mobile IP services. However, *Warrier* does teach a reasonable but broad interpretation of assigning the home agent from a pool of available home agents by selecting a preferred home agent from the available home agent by selecting a home agent that has not failed.

*Perkins* teaches the above limitation at issue with respect to smooth handoffs, see e.g., page 95. An access request message is further taught by *Perkins* as e.g., a registration request message, see e.g., page 91.

Thus the examiner proposes to modify *Warrier* by clarifying that the registration message as taught by *Warrier* is an access request message indicating a request for mobile IP services. Thus the examiner notes that it would have been obvious to one skilled in the art to make the above proposed modification. In particular, one skilled in the art would have been motivated to make the modification for the purpose of optimizing routes. As such, *Warrier* teaches the proposed modification at e.g., page 94.

As to **claim 25**, see similar rejection to claim 14.

#### *Allowable Subject Matter*

10. **Claims 8-13 and 21-24** are allowed.

#### *Conclusion*

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11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derrick W. Ferris whose telephone number is (571) 272-3123. The examiner can normally be reached on M-F 9 A.M. - 4:30 P.M. E.S.T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on (571)272-3134. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



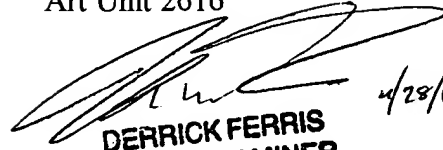
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DWF

Derrick W. Ferris

Examiner

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4/28/06  
**DERRICK FERRIS**  
**PATENT EXAMINER**